



Steve Cohn



Courtesy Gradimages



Steve Cohn

Top left: At the Keck School of Medicine commencement ceremony are (from left): Henri Ford, vice dean for medical education at the Keck School, USC Trustee Ming Hsieh, commencement speaker and actress Madeleine Stowe and Dean Carmen A. Puliafito. Above right: Keck School graduate Sonia Esparza gets carried away at graduation by her cousin Edgar Diaz. Above left: Division of Biokinesiology and Physical Therapy graduates Haley Bartel and Shannon Coughlin celebrate at the division's May 16 commencement ceremony at Bovard Auditorium.

Graduates advised to hold on to their passion and altruism

By Amy E. Hamaker

The national anthem has been sung thousands of times before at the USC Galen Center. But on May 17, the familiar tune celebrated medicine, heralding the opening of commencement ceremonies for the MD and MD/PhD graduates of the Class of 2014 of the Keck School of Medicine of USC.

Distinguished speakers shared advice with the 169 graduating Keck School students on their careers and the impact they can have on all parts of society in a changing medical landscape.

Carmen A. Puliafito, MD, MBA, dean of the Keck School, praised their passion and commitment to social justice in health-care delivery. "I love this class's brilliance, enthusiasm, clinical acumen, research

accomplishments and love of life," he said. "As your Dean, I have one simple request: Do not forget the poor, the unlucky, the unfortunate — those people whom you will encounter without the means or knowledge to get the health care they need and deserve."

Student speaker and MD candidate David Herman II expounded on the profundity of Disney characters, citing Sebastian, the hermit crab from *The Little Mermaid*, who said, "Listen to me. The human world is a mess."

"Harsh criticism from a crustacean, but in many respects, the human world is a mess," said Herman. "I suspect that many of us chose to enter medicine because we felt we had something to offer to help

clean it up. We came to Keck because the faculty asked us to join them with the intention of molding us, training us, stamping us and sending us out into the world to make it better in whatever ways we can."

Actress and social activist Madeleine Stowe spoke on her father's illness and the profound impact the doctors' compassion had on her family's security.

"You are healers, easing and eradicating pain and suffering, and that is a vocation — it is not a job, no matter how much it may feel like one at times," she said. "It is a true calling, and you are so lucky because most of us struggle in life to ever find one."

"As medical practitioners, I ask you to make one

See **GRADUATION**, page 4

Keck Medicine of USC launches USC Neurorestoration Center

By Alison Trinidad

Keck Medicine of USC has established the USC Neurorestoration Center, a multi-institution collaboration for breakthrough discoveries that — for the first time — brings together neural engineering, neuroscience and neurorehabilitation to restore neurological function in the human brain.

The center is the "brain child" of Charles Liu, MD, PhD, director, and Christianne Heck, MD, MMM, co-director, who spent more than 10 years seeking the best community partners to move the treatment of neurological disorders beyond traditional surgery and medications.

They aim to accomplish this by engineering

new technology that restores neurological function while keeping the brain intact.

"As one of the nation's leading academic medical centers, Keck Medicine of USC bridges the gap between science and medicine, and the USC Neurorestoration Center is a prime example of that pioneering approach," said Carmen A. Puliafito, MD, MBA, dean of the Keck School of Medicine of USC. "The center's creation is in direct alignment with President Obama's BRAIN Initiative, and we anticipate great things to come forth from the effort."

The Brain Research through Advancing Innovative Neurotechnologies, or BRAIN, Initiative was

launched in April 2013 to accelerate the development and application of new technology to treat, cure and prevent brain disorders.

The USC Neurorestoration Center brings together the world's best minds in neurology, neurosurgery, bioengineering and neuro-rehabilitation. Founding partners include Theodore W. Berger, PhD, from the USC Viterbi School of Engineering; Richard A. Andersen, PhD, of the California Institute of Technology (Caltech); and Mindy Aisen, MD, of Rancho Los Amigos National Rehabilitation Center.

"With nearly 100 billion neurons — and 100

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Rodgers steps down from Keck School after reinvigorating school's finances

Coreen Rodgers, MBA, will step down as chief operating officer of the Keck School of Medicine on Aug. 1 to assume the role of chief financial officer and vice president at the Huntington Library, Art Collections and Gardens in San Marino, CA. She will be responsible for the management of a \$450 million endowment and the annual operating budget.

Rodgers was appointed chief operating officer in 2007. During her tenure at USC, she was instrumental in transforming the Keck School's administrative and financial structure, and

she leaves the Keck School in its best financial position in history. Reporting directly to Dean Carmen A. Puliafito, MD, MBA, Rodgers oversaw the Keck School's annual budget of \$750 million, coordinating and managing the School's research activity, the clinical departments, various areas of administration and education, as well as the contract with the County of Los Angeles.

Among her many



Coreen Rodgers

accomplishments at USC, Rodgers led the integration of 19 separate clinical practice corporations in USC for over 500 faculty physicians, led the financial planning prior to acquisition of USC

University and USC Norris Hospitals from the Tenet Healthcare Corporation, developed integrated financial statements for the clinical and basic science departments and installed a new general ledger system at the medical school.

Dean Carmen A. Puliafito called her an "outstanding financial troubleshooter who helped many of us solve a wide variety of financial challenges. She was an excellent liaison to the Provost's Office and the Keck Medical Center of USC. Medical schools are complex, difficult and often times perplexing institutions. Coreen made many positive contributions to benefit our students, patients and faculty."

Rodgers said, "My experience at USC has been so rich and rewarding because of the many

talented individuals and exciting projects at the University. After working with Dean Puliafito for the past thirteen years, I must thank him for this extraordinary opportunity to come to California, and for the trust and guidance he has always given me. The Chairs and administrators have accomplished so much for the departments of the medical school; I am so proud of our current state of affairs and will miss the daily interactions with my wonderful Keck colleagues."

A search for her successor will begin immediately.

Inaugural director of Institute for the Developing Mind named at CHLA

Bradley Scott Peterson, MD, has been named the inaugural director of the Institute for the Developing Mind (IDM) at The Saban Research Institute of Children's Hospital Los Angeles, effective July 1.

Peterson is currently director of the Center for Developmental Neuropsychiatry at Columbia University. An accomplished scientist and academic researcher, his work has broadly focused

on child neuropsychiatry and improving the health of children with disabilities and neurodevelopmental disorders.

The Institute for the Developing Mind has been established to fulfill the need for expanding research efforts, development of new research technologies, and education of a new generation of interdisciplinary clinicians and scientists — all working to discover new diagnostics, identify risk factors, and develop innovative biomedical, behavioral and educational treatment strategies for childhood brain disorders.

Peterson's research interests are concerned primarily with the applications of neuroimaging to the study of serious developmental neuropsychiatric disorders, including Tourette syndrome, ADHD, OCD, autism, bipolar disorder, depression, prenatal toxin exposures and premature birth. His imaging studies integrate measures of brain structure and function with genetic,

neurochemical, behavioral, neuropsychological and clinical measures to define disease processes and therapeutic responses in large samples of children and adults.

His work at Columbia's Pediatric Brain Imaging Laboratory has aimed to identify the brain bases of childhood psychiatric disorders and to map the complex pathways between the genetic and environmental influences that can trigger the onset

of cognitive disorders or adversely alter their course.

As faculty in the Department of Pediatrics' Division of Research on Children, Youth and Families at CHLA, he will also have a secondary appointment in the Department of Psychiatry at the Keck School of Medicine of USC, in which he will serve as the director of the Division of Child and Adolescent Psychiatry.

—Story courtesy CHLA



Jon Nalick

Handling complex cases — Keck Medical Center of USC hosted the first annual "Solutions for Complex Care" Symposium on May 8, aimed at teaching case managers and medical directors from managed care organizations about new cost-effective approaches and innovative therapies to treating patients with complex diagnoses. The all-day event included 14 presentations from Keck's faculty and administrators and covered a range of topics, including spine surgeries, pelvic fractures, stroke management, interventional cardiology, acoustic neuromas, therapeutic endoscopy, lung cancers and case management. Above, at the event, from left, are: Leslie Tarlow, Kevin Kaldjian, Karen Longpre, William Mack, May Kim-Tenser, Tarek Salaway, Ashley Foster and Josie Drury.

PIBBS boasts stellar class of students

Lured to USC by the Programs in Biomedical and Biological Sciences (PIBBS) — the gateway into PhD programs in biomedical and biological sciences — 30 new PhD students will call the Health Sciences Campus home this fall as they begin working towards their biomedical doctoral degrees.

PIBBS Director Ite Laird-Offringa said the program received 345 applications, with selected incoming students coming from diverse backgrounds and six countries. Students hail from California universities, including Berkeley and UCLA, and from across the nation, including University of Maine, University of Tennessee, Ohio State University, NYU and Emory University.

Peggy Farnham, associate dean of graduate affairs, said she is extremely pleased with this year's recruits, which she called "top-notch students who will truly contribute to our research environment while getting superb training in the

biomedical sciences."

PIBBS students spend their first year rotating through research laboratories while taking a core curriculum. After the first year, students select a PhD degree-granting program and laboratory. This incoming class will be the first cohort to take advantage of novel educational innovations, including the establishment of four PhD programs: Cancer Biology & Genomics; Development, Stem Cells, & Regenerative Medicine; Molecular Structure & Signaling; and Medical Biology.

As part of the program, students prepare an F31 grant proposal, which Laird-Offringa described as a "win-win-win situation; if the grants get funded, not only will this bring more research dollars to USC, it will enhance the prestige of our students and document their ability to acquire their own funding while preparing them for their future."

For more information about PIBBS, visit <http://pibbs.usc.edu>.

HSC News

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Keck Medicine Initiative advances in record-breaking year

The Keck Medicine Initiative, a \$1.5 billion, multi-year effort, has raised more than \$629 million.

By Amy E. Hamaker

It's official — the University of Southern California has reached the halfway point in its \$6 billion Campaign for USC, and Keck Medicine of USC continues to play an important part.

As of press time, total Campaign for USC fundraising had reached more than \$3.3 billion, while the Keck Medicine Initiative, a \$1.5 billion, multi-year effort, has raised more than \$629 million. This figure represents 42% of the initiative's \$1.5 billion goal. Health sciences fundraising progress for the current fiscal year (including gifts and new pledges) stood at \$188 million, an increase of 153% from progress at the same time during the previous fiscal year.

"The Keck Medicine Initiative has already provided resources to fund endowed chairs, establish new programs, and provide support for medical student scholarships. The campaign will trans-

form every part of our medical enterprise and positively impact aspect of the Health Sciences Campus," said Keck School of Medicine Dean Carmen A. Puliafito, MD, MBA. "To reach our goal of creating the most influential medical center on the Pacific Rim, we must continue to recruit world-class faculty, provide state-of-the-art laboratories and clinics, and provide comprehensive care to hundreds of thousands of patients annually from Southern California and around the world."

The Keck Medicine Initiative, part of the Campaign for USC, seeks to advance Keck Medicine's academic, research and clinical priorities. The initiative focuses on four priorities within USC's academic medical enterprise:

- Endowment for faculty and research programs, including programs, directorships and chairs, and start-up funding;

- Endowment for student scholarships for all areas of medical education;

- Academic priorities, including Keck Medicine's broad spectrum of institutes and centers; and

- Capital projects, including the Norris Healthcare Center, renovation of educational and laboratory spaces, investments in core facilities and equipment.

"It is vital that we continue to support transformative, interdisciplinary medicine to tackle the most challenging medical issues that face our society," said Melany Duval, senior associate dean for development. "Gifts at every level bring us closer to that goal, and we are deeply grateful for the support shown to us by our donors, who have brought us so far already."

To learn more about the Keck Medicine Initiative, contact Duval at (323) 442-1531 or melanydu@usc.edu.

USC Stem Cell opens Choi Family Therapeutic Screening Facility

By Cristy Lytal

How can scientists make more accurate predictions about which potential drugs will effectively treat disease — before launching expensive and laborious human clinical trials? USC's new Choi Family Therapeutic Screening Facility offers one answer: through the "disease in a dish" approach.

At the grand opening on May 2, researchers thanked Kin-Chung Choi and his family for the generous gift that made the "disease in a dish" approach possible.

The approach involves reprogramming patients' stem cells into their disease-affected cell types. This allows scientists to populate petri dishes with neural cells from patients with neurodegenera-

tive diseases, inner ear cells from patients with hearing loss or balance disorders, and other cell types relevant to a wide variety of medical conditions. These "diseases in a dish" can then be used to test the effects of potential drugs on a patient's actual cells.

Part of the Eli and Edythe Broad Center for Regenerative Medicine and Stem Cell Research at USC, the facility comprises extensive chemical libraries, state-of-the-art screening equipment and trained technicians — which will support researchers across the university.

"Stem cell research is such an exciting field for scientists now," said Kin-Chung Choi. "Our family is honored to have the opportunity to learn alongside USC's scientists

and help them reach their potential in turning discoveries into cures."

Justin Ichida, PhD, director of the screening facility and assistant professor of stem cell biology and regenerative medicine, highlighted his own promising work: conducting some of the first screens on Lou Gehrig's disease using patient-specific cells.

Two of Ichida's colleagues from the Department of Stem Cell Biology and Regenerative Medicine shared additional examples of how the facility is accelerating the development of new patient therapies.

Neil Segil, PhD, professor of research, talked about the quest for potential drugs that can regenerate inner ear cells



Cristy Lytal

From right, philanthropist Kin-Chung (KC) Choi; USC's stem cell research center director Andy McMahon and program director Qing Liu-Michael; and KC's wife Amy Choi, daughter Lucia Choi-Dalton, daughter-in-law Queence Choi, and son and USC alumnus Henry Choi.

as a treatment for hearing loss and balance disorders, which affect millions of people.

Min Yu, MD, PhD, assistant professor of stem cell biology and regenerative medicine, described how

the facility will advance her breast cancer research, which involves filtering out circulating tumor stem cells from the blood to understand how the disease spreads and stop it in its tracks.

NEURORESTORATION: Center to build on success

Continued from Page 1
trillion connections — the human brain is the ultimate frontier to explore in terms of complexity," said Liu, professor of neurological surgery and neurology at the Keck School and director of the new Center. "Still, with all the scientific advances in understanding this vital organ, little has been done to bring those laboratory discoveries to the hospital clinic in a systematic way. The concepts we're discussing are relevant to everybody in the world, and we are reaching out to partner institutions that include some of the very top universities in Asia and in Europe so that we can begin to collaborate together on these concepts."

The Center builds on the successes and strategic partnerships that Liu and Heck have developed over the last decade through the USC Comprehensive Epilepsy Program. By mapping, decoding and repairing basic neural circuitry of patients being treated for epilepsy at Keck Hospital of USC, LAC+USC Medical Center and Rancho Los Amigos, the team has established a solid platform from which to launch the new Center.

Heck, associate professor of neurology at the Keck School and medical director of the USC Comprehensive Epilepsy Program, said, "USC is an amazingly entrepreneurial place, and we want to find a way to make people's lives better every day, whether they are suffering from epilepsy, strokes, multiple sclerosis or spinal cord injury."



Van Urfaian

The USC Neurorestoration Center founding team includes Director Charles Liu (from left), Theodore W. Berger, Mindy Aisen, co-director Christianne Heck, and Richard A. Andersen.

Edmondson Faculty Center to reopen with fresh new look

The Edmondson Faculty Center closed May 16 for a renovation designed to update its appearance and furnishings, improve its accessibility to faculty and better utilize its current space.

The center is scheduled to reopen around Aug. 1.

Robert Cooper, MBA, EdD, vice provost for academic operations and strategy, said the planned improvements are intended to refresh the interior to make it brighter with new furniture, carpet and paint. Partition walls may be moved as well to make the bar area more useful to patrons.

Cooper said that an advisory council of faculty from the Keck School, the Ostrow School of Dentistry and the USC School of Pharmacy would offer guidance on the renovation, operational aspects of the center, and new seasonal menu choices.

During the renovation, catering through Auxiliary Services, which staffs the center, will remain available and alternative meeting rooms for catering events are now being secured.

The changes were spurred, in part, by a Keck Faculty Council survey that garnered responses from more than

400 faculty members. Victoria Marx, MD, president of the council, said the unprecedented level of response showed that "HSC faculty care very much about the issue of the effectiveness of the [faculty center]."

The renovation is intended to address issues of concern to survey respondents such as that the interior was too "dark" and "dingy" and the food lacked the quality and variety guests expected.

Also, since many respondents said they were disappointed by the membership requirement, that has been dropped. The center will be open to all faculty and senior staff members who make a reservation, and their guests. A reservation system will be implemented to allow for easy access to the center.

Marx noted that as the prominence of the Health Sciences campus grows, with recruitment of senior researchers as well as growth of Keck Medical Center, "The need for a vibrant, modern faculty center is growing. The community has many places to eat but only the Edmondson Faculty Center provides a high-end restaurant experience to gather and entertain guests and visitors."

GRADUATION: Health Sciences Campus celebrates Class of 2014

Continued from page 1

choice: Pick the good fight, and with your articulate voices be the leaders who bring us back into the light when we are hurt and frightened, and help us feel safe again," she continued. "Your passion and advocacy may be the most powerful weapon this country has; don't ever underestimate it."

Stowe was presented with the Dean's Humanitarian Service Award for her charitable work in Haiti, as well as her work as a member of the board of directors of Artists for Peace and Justice, an organization formed to support efforts of a grassroots Haitian team serving residents of Port-Au-Prince's toughest neighborhoods.

Ming Hsieh, USC trustee and CEO and chairman of Fulgent Therapeutics, was honored with the Elaine Stevely Hoffman Award for his extraordinary service in



USC School of Pharmacy graduate Benjamin Yep turns his cap into a molecular fashion statement at commencement.

recognition of longstanding contributions and supreme dedication to the Keck School, which includes donating \$85 million to medical and engineering research at USC.

Other commencement ceremonies were held throughout the week.

On Wednesday, May 14,

the Keck School awarded 123 master's degrees in a variety of biomedical and biological fields, 79 Master of Public Health degrees and 33 PhD degrees.

On Thursday, May 16, ceremonies were held for several schools and programs, including the USC School of Pharmacy, the Division of Biokinesiology and Physical Therapy, the Division of Occupational Science and Occupational Therapy, the Keck School's Primary Care Physician Assistant Program, Health Promotion and Global Health programs.

The USC School of Pharmacy awarded 178 PharmD degrees, 13 PhD degrees and six Doctor of



Keck School of Medicine graduates file past family and friends at the conclusion of commencement at the USC Galen Center.

Regulatory Science degrees. Additionally, 55 graduates were awarded master's degrees, 41 pharmacists completed their residency training and eight individuals completed fellowships.

The Division of Biokinesiology and Physical Therapy awarded 92 Doctor of Physical Therapy degrees, two master's degrees in biokinesiology and five PhD degrees in biokinesiology, while the Division of Occupational Science and Occupational Therapy honored two graduates with PhD degrees in occupational science, 30 Doctor of Occupational Therapy degrees, 130 master's degrees and 21

bachelor's degrees.

The Herman Ostrow School of Dentistry of USC awarded 172 Doctor of Dental Surgery degrees, 40 bachelor's degrees in dental hygiene, 46 advanced specialty degrees and four PhD degrees in craniofacial biology.

On Friday, May 16, the Department of Family Medicine's Primary Care Physician Assistant Program awarded 53 Master of Physician Assistant Practice degrees, while the Department of Preventive Medicine's Health Promotion and Global Health undergraduate programs awarded 115 Bachelor of Science degrees.

Calendar of Events

Wednesday, June 4

7:30 a.m. Institute for Integrative Health Seminar. "Learning Integrative Pharmacy Practices at USC." PSC 108. Info and RSVP: Quintilia Avila, (323) 442-2638, qavila@usc.edu, integrativehealth.usc.edu

Tuesday, June 10

9:30 a.m. – 6 p.m. The Saban Research Institute of Children's Hospital Los Angeles Open House. "19th Annual Poster Session." 4661 Sunset Blvd. Los Angeles. Parking at 4650 Sunset Blvd. Info: Harleen Gill, (323) 361-8626, hgill@chla.usc.edu, tinyurl.com/l54kdyz

Wednesday, June 11

12:30 p.m. Research Ethics Forum. "What Ethical Duties Are Owed To Patients Who Participate in Biorepositories?" "Carlos N. Pato, USC. Norris Research Tower, LG503-4. Info and RSVP: Ray De Mesa, (323) 442-8281, eede@sc-ctsi.org, ow.ly/x1MBt

Thursday, June 19

9 a.m. – 3 p.m. International Center for Regulatory Science/School of Pharmacy Symposium. "2014 Summerfest Kickoff: Collaborate, Innovate and Globalize," Guido Rasi, European Medicines Agency. Aresty Auditorium. Info: (323) 442-3521, piresmer@usc.edu. Registration and info: tinyurl.com/nww9e2z

Friday, June 20

8:30 a.m. – 3 p.m. Orthopaedic Surgery Continuing Medical Education. "USC Graduate Orthopaedic Society Scientific Meeting," Joseph D. Zuckerman, NYU School of Medicine. Aresty Auditorium. Info and RSVP: Sylvia Suarez, (323) 226-7204, sylvia@usc.edu

Notice: Calendar submissions must be received at least 10 days before an issue's publication date to be considered. Please note that timely submission does not guarantee an item will be printed. Entries must include day, date, time, title of talk, first and last name of speaker, affiliation of speaker, location and a phone number or email address for information.

Submit calendar items at tinyurl.com/calendar-hsc.

Etcetera

David Ko, clinical associate professor of neurology, has been named editor-in-chief of the *World Korean Medical Journal*.

The bi-monthly journal shares stories of successful global Korean physicians and key industry opinion leaders, along with highlights of top stories and cutting-edge trends in the health care industry.

The cover story of the inaugural issue features Sammy Lee, USC '47, a noted physician and Olympic athlete.

•••

The International Menopausal Society recently honored **Frank Z. Stanczyk**, PhD, professor of research in the Departments of Obstetrics and Gynecology and Preventive Medicine for his contributions to the field of menopause science.

The society presented Stanczyk with the Henry Burger Prize at the 14th World Congress on Menopause in Cancun, Mexico, on May 1. The prize recognized Stanczyk's research on treatment of postmenopausal women with topical progesterone creams and gels; the role of adrenal

androgens in the menopausal transition; measurement of estrogens and androgens in breast tumor adipocytes;

effect of age and BMI on circulating estrogen levels in postmenopausal women receiving hormone therapy.

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